August, 1959

THE CHEMIST

VOLUME XXXVI NUMBER 8

Dr. Maurice J. Kelley, F.A.I.C. (center) receives Honor Scroll of the New York AIC Chapter from Chapter Chairman George F. Foy (left). Ralph Wechsler, F.A.I.C., President Nopco Chemical Company, is at right.

(*See Page* 293.)

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The CHEMIST

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Deadlines for THE CHEMIST: For the September issue the deadline is August 15.

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THE AMERICAN INSTITUTE OF CHEMISTS does not necessarily endorse any of the facts or opinions advanced in articles which appear in THE CHEMIST.

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TO COME IN SEPTEMBER

"When Should I Change Jobs?" Harrison C. Blankmeyer, manager Reinforced Plastics Development Lab., Owens-Corning Fiberglas Corp., Ashton, R. I., presented this stimulating treatment of a highly personal problem at a recent meeting of the Chicago Chapter. • Dr. A. E. Wood, head, Department of Chemistry, Mississippi College, Clinton, Miss., honored by the Louisiana Chapter, offers "The Teaching of College Chemistry—a Dedicated Opportunity." More of our fine Committee reports will appear.

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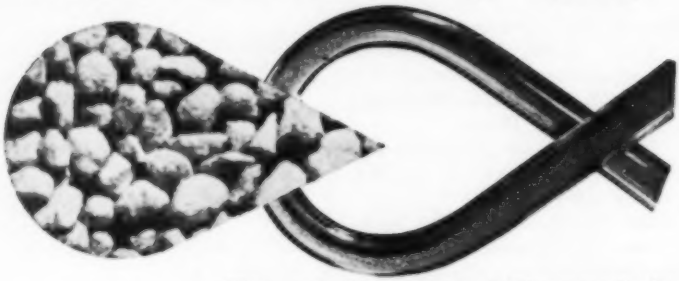

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EDITORIAL
Chemist or Chemists?

(This editorial appeared in the recent *Newsletter* of the Western AIC Chapter, of which Thomas J. Rollins, F.A.I.C., director, Keldon Research Corp., Los Angeles 54, California, is editor.)

WITHOUT question, chemists are devoted to the art and science of chemistry. Also, without question, they constitute a sea of individuals whose major bond is in their science. Their social impact and consideration of their enlightened self interests, as a group, are lacking. In these important respects their opinions tend toward diversity and apathy.

In the face of a mushrooming technology and pages of scientific help wanted ads such considerations may seem academic and even a little boring. Every analyst knows it is very difficult to salvage a determination once the beaker has bumped and spilled on the hot plate. A few boiling chips, used in time, will allow a reaction to proceed smoothly instead of catastrophically. In the same manner, boiling chips of mature thought will ease a situation that is now developing that will be a serious detriment in years to come to both the science of chemistry and the profession of chemist.

This problem concerns the loss of aspiring chemists to other fields in our present day. Qualified youngsters in our schools can not be blamed for electing the glamor studies of electronics and engineering rather than an unsung chemistry. Nor can they be blamed for being discouraged by the practicing chemist who in many instances has weighty technical responsibilities and a salary less than many tradesmen.

The depletion, in future years, of the chemists' ranks will be a most serious problem. The training of a capable chemist involves the highest and most demanding of scientific disciplines both in school and in work for a period of at least ten years. The time to prevent this depletion is now in order to permit a proper training period to produce reasonable numbers of qualified chemists. Ten years of inaction and the damage will be done; everyone will then be completely aware of a serious lack of chemists.

The problems of proper recognition, social responsibility, and equitable compensation are problems that need solutions now.

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Special AIC Announcements

Gold Medal Award Nominations

The AIC awards annually a Gold Medal "for noteworthy and outstanding service to the science of chemistry or the profession of chemist or chemical engineer in the United States." Dr. John H. Nair, former AIC president, 9 Dunnder Drive, Summit, N. J., is the chairman of the Committee on Gold Medal Award. He invites AIC members to send nominations for this Medal to him for consideration by the Committee.

Committee Reports

Some of the Committee Reports, presented at the 36th Annual AIC Meeting, are printed in this issue of THE CHEMIST. (Page 310.) Please read them (they represent diligent effort on behalf of the AIC) and send your comments to the Committees or to THE CHEMIST. A number of Committees have been continued over for the 1959-60 fiscal year to complete projects. A list of all Committees for this fiscal year will be printed in an early issue.

Regular Council Meeting

The next regular meeting of the AIC Board of Directors and the National Council will be held on Thursday, Oct. 1, 1959, at the LaSalle Hotel, Chicago, Ill., with luncheon in Parlor F at 12 noon.

AIC Social Hour

A Social Hour for AIC members and their guests will be held Monday, September 14, 1959, at 5:30 p.m., at the Claridge Hotel, Atlantic City, N. J. All AIC members who are attending the American Chemical Society convention in Atlantic City are cordially urged to come to this Social Hour and to invite friends.

Pennsylvania Chapter Officers

The Pennsylvania Chapter announces the election of the following officers for 1959-60:

Chairman, Dr. William E. Langeland, 39 Dechert Road, Conshohocken, Pa.

Vice Chairman, Dr. E. M. Kipp, Director of Research & Development, Foote Mineral Co., P.O. Box 576, Berwyn, Pa.

Treasurer, John H. Staub, 7301 Shelbourne St., Philadelphia, Pa.

Secretary, Dr. Ezra H. Bitcover, 8237 Michener Ave., Philadelphia 50, Pa.

National Council Representative, Dr. James L. Jezl, 331 Cornell Ave., Swarthmore, Pa.

Representatives to the AAAS Council

The following representatives from the AIC to the Council of the American Association for the Advancement of Science have been appointed for this fiscal year: Dr. Milton Harris, AIC president-elect, and Dr. Lloyd Van Doren, AIC secretary.

The 200 Club

The Committee on New Chapters and Expansion, under the chairmanship of Martin B. Williams, F.A.I.C., and the Committee on Membership, with co-chairmen Dr. Lawrence T. Eby and Dr. John R. Bowman, are requesting volunteers for a "200 Club," to be composed of 200 AIC members who will each bring in ten new members during the present fiscal year, which began May 1. The goal is 6000 members by May 1, 1960. Please send your name to Dr. L. T. Eby, Market Development Div., Enjay Co., Inc., Elizabeth, N.J.

Dr. Bjorksten to Be Honored

The Chicago AIC Chapter will present its Honor Scroll to Dr. Johan Bjorksten, F.A.I.C., president, Bjorksten Research Labs., Madison 1, Wis., on October 1, at a dinner to be held at the Furniture Club, Chicago, Ill. Dr. Wayne E. Kuhn, AIC president, will present the Scroll.

Special Council Meeting

A special meeting of the AIC National Council and the Advisory Board of THE CHEMIST will be held Sunday, September 13, 1959, at the Claridge Hotel, Atlantic City, N. J., at 5:30 p.m. to discuss future plans for THE CHEMIST.

Richardson, Bellows, Henry & Co., Inc., management consultants, have moved to 355 Lexington Ave., New York 17, N. Y.

Professional Appointments

Aug. 8, 1959. Homewood City Park, near Birmingham, Alabama. Alabama AIC Chapter meeting. 3:30 p.m. Barbecue at 6 p.m. ($1.50). Program 7 p.m. Ladies are specially invited. Guests will include the editor of THE CHEMIST.

Sept. 13, 1959. Atlantic City, N. J. Claridge Hotel. East Room, National AIC Council and Advisory Board of THE CHEMIST. Special meeting to discuss plans for THE CHEMIST. Social Hour, 5:30 p.m. Dinner 6:30 p.m.

Sept. 18, 1959. Fiber Products Research Center, Beaver Falls, N. Y. Organizational meeting of the new Beaver Falls Chapter. For information, Clark E. Thorp, President, Fiber Products Research Center, Inc., Beaver Falls, N. Y.

Sept. 26, 1959. Tuscaloosa, Alabama. Stafford Hotel. Alabama AIC Chapter Meeting. Presentation of Honorary AIC Membership to Dr. Jack P. Montgomery, AIC Charter Member, professor emeritus, The University of Alabama.

Sept. 29, 1959. Kansas City, Mo. Rockhurst College. Midwest AIC Chapter meeting. Dinner (cafeteria) 6:30 p.m. Meeting 7:30 p.m. Panel Theme: "Professional Opportunities for Students of Chemistry." Moderator, Dr. A. Ernest MacGee.

Oct. 1, 1959. Chicago, Ill. La Salle Hotel, Parlor F. AIC Board of Directors and National Council. Luncheon meeting. 12 noon.

Oct. 1, 1959. Chicago, Ill. Chicago AIC Chapter Meeting. Presentation of the Honor Scroll of the Chapter to Dr. Johan Bjorksten, F.A.I.C., president, Bjorksten Research Labs., Madison 1, Wis. AIC President, Dr. Wayne E. Kuhn, will present the Scroll.

Oct. 22, 1959. Atlanta, Ga. Piedmont Chapter. First Anniversary Meeting. Speaker, Dr. Wayne E. Kuhn, AIC President.

Nov. 30, 1959. Kansas City, Mo. Rockhurst College. Midwest AIC Chapter meeting. Dinner (Cafeteria) 6:30 p.m. Meeting 7:30 p.m. Annual Elections.

May 11-13, 1960. Minneapolis, Minn. Radisson Hotel. 37th Annual AIC Meeting. The Twin City Chapter will be our host.

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About AIC Members

Charles W. Baulknight, F.A.I.C., received the Honorary Degree of D.Sc., from Johnson C. Smith University, Charlotte, N. C., on June first. He is senior research scientist at the Missile & Space Vehicles Department, General Electric Co., Philadelphia, Pa.

Dr. Frederick G. Sawyer, F.A.I.C., vice president, Jacobs Engineering Co., Pasadena, Calif., announces that the company has been selected by Southern California Edison Co. to perform the detailed engineering, design, and process consulting for a pilot plant to convert sea water to fresh water, at the Mandalay Steam Generating plant under construction near Oxnard, Calif.

Dr. Emmett B. Carmichael, F.A.I.C., professor, University of Alabama Medical Center, has presented his 40-year collection on experimental medicine, including some 25,000 reprints of scientific articles, to the Library of Howard College, Birmingham, Ala.

A. C. Holler, F.A.I.C., has been promoted to vice president, Chemical & Metallurgical Div., Twin City Testing & Engineering Lab., Inc., 2440 Franklin Ave., St. Paul 14, Minn.

Prof. Julian F. Smith, F.A.I.C., Lenoir Rhyne College, Hickory, N.C., is lecturing at Columbia University as one of the experts contributing to the summer workshop course, "Scientific and technical abstracting and indexing" offered by the university's School of Library Service.

Dr. T. R. Aalto, F.A.I.C., has been appointed product sales manager, Fine Chemicals, Heyden Chemical Division of Heyden Newport Chemical Corp., New York 17, N.Y.

James B. Weaver, F.A.I.C., formerly manager of the Atlas Powder Company's economic evaluation section, was named director of a new department for development appraisal.

Henry Harrison, F.A.I.C, who has been with Oakite Products, Inc., since 1923, has now left this firm. His address is 1409 New York Ave., Brooklyn 10, N. Y.

(*And see pages* 309 *and* 316.)

Scientific Training for the Economy

Dr. B. D. Van Evera, F.A.I.C.

Dean for Sponsored Research, The George Washington University, Washington 6, D. C.

(Presented when the author introduced the Third Professional Session at the 36th Annual AIC Meeting, Atlantic City, N. J.)

THE educational system which trains for our economy is an integral part of the social (including governmental) background which supports it, and changes in the requirements of one part of such a system must take into account its effect on all parts.

As a youngster, I heard my elders discuss the announcement from Washington that our population had reached 100,000,000. Today it is nearly 170,000,000 and rising rapidly—this with a minimum of immigration. As a resident of the fastest growing county in the country, I am keenly aware of the almost explosive nature of that growth. The shopping centers that are becoming so much a feature of our landscape are arising because there are more and more people to serve. The production of the things that are sold in these centers takes more and more trained people.

One complicating factor in this situation is that the things we buy today are frequently more complicated (and require more intricate manufacturing procedures) than was formerly the case. Twenty-five years ago most lawns were mowed with reeltype mowers, the power being furnished by the pusher. Today every weekend in every suburban community, one hears a hum like a mighty hive of bees—the sound coming from power mowers (a gadget requiring more manufacturing processes, more maintenance, fuel other than human food), all to cut grass which is no tougher on lawns that are, in general, no larger.

Our mothers prepared meals themselves by hand from foods brought straight from garden and field, dirt and husks still on them. Our wives go to the freezer to bring out a completely prepared dinner, plate and all, heat it and set it before us. But should our wives decide to cook, they unwrap a pre-cut and pre-trimmed steak, or chicken ready for the pan, cook frozen vegetables, dump a cake-mix into a pan to produce a dessert in a few minutes. In half an hour at most, dinner is ready. It takes a great deal of industrial technology to make such miracles possible.

Even the textiles that we use are no longer simply the mechanically processed product of a sheep or a cotton plant. Though our textiles may start on the sheep's back or on the cotton plant, before the material gets

into use it has been chemically treated so that it does not shrink; it remembers where it should stay creased and where it must not wrinkle. Possibly it did not grow at all, but came from a lump of coal and a chunk of limestone, and is not related, either structurally or genetically, with anything nature ever made.

Not only do we have more people using more complicated things, but they use more of them. In my youth a string-saver was a frugal person to be admired, and all my arithmetic problems and papers to be handed in were done first on wrapping paper which had been smoothed out and made into a rough pad. Today the word stringsaver is an epithet and wrapping paper is for throwing away. The old saying of "eat it up, make it do, wear it out" has been replaced with the philosophy of "throw out the leftovers; I wore that dress once, and throw it away it's scratched." The story of the man who traded in his Cadillac because the ash trays were full is indicative of a social attitude. This is further shown by our modern home architecture, in which attics, those treasure houses of old things, have disappeared.

All this adds up to a great increase in the demand for manufactured goods which are more complicated than ever before. The demand for technologically trained people to produce this flood of goods is thus increasing in a geometric, not an arithmetic, pattern.

On top of this fantastically growing civilian economy has been dropped a defense requirement greater than that borne by any preceding civilization. The threat of Russian imperialism and boldly advertised intent to control the world has forced upon us a burden of research, invention and production of items of defense that staggers the imagination. The number of scientifically trained people required for this work alone is great. When one adds to that number the horde needed for the civilian economy, the educational problem is indeed tremendous. This economy has developed as a free enterprise economy, one in which some entrepreneur's idea of what people will buy is the deciding factor in what is created. Except in time of dire national emergency, our government does not dictate what may, and may not, be manufactured.

The governmental setup behind this economy is one which gets things done in large measure by creating conditions under which private enterprise can do the work, not by doing it itself. We are all active participants in government at some level. The technician, the scientist, the professional man, the street sweeper, is expected to devote his share of time to governmental matters. And so meetings of the PTA, Citizen's Association, and county political groups

have become an integral part of our lives. If we do not want a particular area to be rezoned for commercial or other purposes, we appear before the proper board and oppose it. If we have any complaints about the school system, the school board hears of it. We Americans are trained from our earliest years to understand our government, how it works, and what we can do about it. Civics is an integral part of our program of education. It is our strong hope that the ability to think straight, to reason from a given series of facts to a practical solution (which is the earmark of the technically trained man) will carry over into the solution of political problems whether they be on the local, state, national, or international level. Our whole society is geared to intelligent participation in government.

It would seem then that the economy and the government which it supports depend upon our educational system for the trained people needed for their operation. Perhaps then we had best look at our educational system as it exists today. We are a nation devoted (on paper) to education. Every child is sentenced by law to spend the years from six to sixteen in educational servitude whether he can benefit from it or not. Education is one of our fetishes.

The child starts out in preschool and progresses to kindergarten, and in these two years he learns that school is to play in—a concept from which too many of them never recover. He progresses through the grades, promoted all too often because he is a year older rather than because he is educationally a year wiser. In very few cases before he gets to college, and sometimes not then, is the student put under pressure to work to his maximum capacity. The great social crime of the 20th century in America has been our underestimation of the capacity of our children to learn. This comes perhaps from a general misunderstanding of human development and the learning process.

We build huge gymnasiums to develop the physical side of our children, we have athletic competitions to develop their muscles, honor the winners with banquets and school letters, but we have few similar rewards for intellectual achievement. Our people do not seem to understand that just as exercise is necessary for the development of physical muscles so mental exercise is required for the development of mental muscles; they do not understand that good teaching must be complemented with good learning, and that both involve work; the former by the teacher and the latter by the student. They react as though there is magic in passing four years within ivy covered walls, and it is often said that extracurricula activities are more valuable to a student than is his activity in class.

Since our educational system was

set up by human beings and is operated by human beings, one cannot expect it to be perfect. Certainly it is not static. In the minds of many of us it has gone down seriously in the last fifty years in some ways, but it has developed wonderfully in others. After all we have one of the most literate populations in the world. We are able, for example, to distribute a high explosive, ammonium nitrate, as a fertilizer to thousands of farmers in full confidence that they have the ability to read the instructions for its use and the intelligence to carry them out. No other country in the world dares to do this.

There are signs that this system is awaking to the need for scientific studies appropriate to the age. Increased emphasis on science in the schools at all levels; increased instruction in foreign language in the lower grades as well as in high school, an increasing requirement for mathematics, all indicate that our educational system does have the resiliancy and freedom to operate that is required to meet our needs.

We return now to a social attitude. While we speak in almost reverent tones of education and its importance, our acts indicate that we consider it, really, to be something less than crucial. The widespread anti-intellectualism of which we are all aware is reflected in inadequate teachers' salaries and too few classrooms. The television comic, a hero to our young, who brags that he didn't do well in arithmetic or history is teaching those young that school work is not really important to getting along in this world, so why worry about it. Children are actually considered queer if they do not profess to hate school.

Now this propaganda, unconscious and unintentional as it is, is quite effective, and is one reason why we are not producing more scientifically trained people today. I note with some discouragement in *Chemical & Engineering News*, April 27, that the number of Ph.D.'s in chemistry dropped last year from the 1003 given in 1957 to 939 in 1958. This at a time when there should be a sharp increase. This social attitude, this anti-intellectualism, is a serious thing and a real handicap to America.

This then is the backdrop. We have a rapidly expanding economy and we produce more and more complicated things. Industry today invests $25,000 to $50,000 in every job. The worker who operates this expensive equipment must be well and extensively trained. Our governmental setup at all levels depends for its functioning upon a thinking, intelligent electorate, and all these trained people must be produced by an educational system which is unique in the world, yet which is currently operating in an unsympathetic medium.

Perseverance— the Sinew of Life

Dr. Maurice J. Kelley, F.A.I.C.

Director, Project Coordination Dept., Chemical Development Div., Nopco Chemical Co., Inc., Harrison, N. J.

(Presented when the author received the Honor Scroll of the New York AIC Chapter, May 28, 1959, at the Hotel Shelburne, New York, N. Y.)

THE theme behind all six meetings of the New York AIC Chapter this 1958-59 season has been "Achieving Professional Success—a Do-It-Yourself Project." The previous speakers have discussed "The Best Job for You,"[1] "Exploiting Our Abilities,"[2] the challenges of a career in independent consulting,[3] why the chemist should contribute to government policy,[4] and how to achieve recognition in the community.[5]

What is the sinew running through all of this? Is it not the same source of strength we find in any worthwhile program? This sinew is perseverance. It is defined as the act or habit of persevering, which latter is in turn, to persist in a purpose. A purpose implies a plan. Persevere is almost always employed in the good or high sense of holding to a worthy course against all difficulty, danger, hindrance or opposition.

(1) James M. Crowe, Executive Editor, ACS Applied Journals.
(2) Marlin G. Geiger, Executive Vice President, W. R. Grace & Co.
(3) Dr. Foster D. Snell, President, Foster D. Snell, Inc.
(4) Dr. Wallace R. Brode, Scientific Advisor to the U.S. Department of State.
(5) Earl Ubell, Science Editor, *New York Herald Tribune.*

Guiding Principles

Let us consider the plan. Each will have to make his own individualized objectives in terms of actual position, level of management, or money. However, there are other aspects of a career plan which are more general, and more important to one's whole life and happiness.

Foremost is that every action reflect credit on the profession of chemist. This requires a worship of Truth for its own sake, regardless of consequences; and a desire to further our understanding of the real truth, in whatever way it manifests itself throughout the cosmos. It also requires a spirit of dedication, first to the welfare of all people in general, then to the welfare of our fellow chemists in a more particular way. This dedication springs from the acceptance of the great value which our religious convictions say belongs to each individual human being. A spirit of fairness requires that our help to one person, to a group, or even to one's self, be not at the expense of others.

It is to the AIC's greatest credit that its guiding principles are those

just outlined, and that they have been set forth in its Code of Ethics. Therefore, it is essential that we devalue the dollar in regard to its importance in our lives. Recognize money for what it is—an instrument, one instrument among many, which we can use for good or ill. It is how he uses what is given to him, not how much he gets, which is the measure of a man.

Individualized Career Objectives

Having established such an overall credo for our career program, let us come to some aspects which concern these objectives within our company or institution. It is natural to want to advance, to be appreciated, to enjoy the respect of one's colleagues.

In the proportion that one is gifted and ambitious, to that extent is he likely to plan ahead. Where does he want to be one year from now? Three, five, ten or twenty years from now? Answer these questions to yourself in terms of salary, position, or even field of chemistry or business. Be sure to include the extra steps you are going to take to prepare yourself, so you will be able to gain these advances—if the opportunities do, or can be made to, materialize. Preferably commit your answers to writing; somewhere where they may be easily reviewed, as in a diary.

Ask these questions of yourself all over again, and write down the answers, once a year. Review your previous estimates against your actual progress, the adequacy of your program for self-improvement, and how well you stuck to the program. Make any revisions in your plan and program that are dictated by the new circumstances that prevail, by your own better understanding of your capabilities, and by your current aspirations. Renew your determination to succeed.

The key to success for most people is hard work—the complete giving of one's self to the job at hand. Work hard at your job; also work hard at your plan. Actually, one of the greatest rewards of all is the sheer joy that comes from accomplishing worthwhile things each day; from doing a challenging total job to the very best of ability.

Let us remember that each of our colleagues has aspirations of his own, and probably a definite plan for his advancement. Let us recognize that one of these colleagues may be better equipped to advance in a path quite close to the one we have mapped out. It is for us to try all the harder to improve ourselves and the caliber of our contributions. It is unthinkable that we should, in such circumstances, withhold the help we give a fellow chemist, or in any way attempt to impede his progress. The choice should be made between the men, both at their best.

The Time Factor

Another important ingredient of planning, and of success, is time. You may be eager and ready, but manage-

ment may not yet be ready for you. Remember the complexity of managing so many capable people at all levels. A whole structure cannot be changed overnight, even if the change is clearly demanded. Chaos would result. Today's managers have been described as trustees—trustees of the people as well as of the property under their charge. This trust is truly awesome, and the more difficult it is the greater is management's sense of honor and equity for all concerned.

In figment, put yourself in management's position, and look back upon your true self and the others about you. All must be kept happy and inspired, yet choices must be made. Use this time, which to you seems delay, to prepare yourself even more. And recognize that, all the time, you are achieving your most important overall objectives of help to your fellow chemists in particular and to all the people in general.

Another aspect of the time factor has to do with selling yourself, or an idea of yours which you wish acted upon. The time may not yet be right for the acceptance of your thoughts. Even if the time is right, it often takes a while for others to come around to your way of thinking. Repeat your proposals, possibly in different form or approach, at strategic intervals. Persevere in this as long as you are convinced you are right, and that the particular matter is still worth fighting for in the context of your overall career strategy.

The Research Executive

What about the chemist who has achieved a position in top research management? Does he have further need for perseverance? More than ever! And in two different aspects; first, to be true to his trust; second, to continue his own advancement, or at least to continue to deserve his important position. With the growing numbers of highly trained young men coming along, a manager is today hard pressed just to keep from becoming obsolete.

The trust of a research director demands that he effectively champion the importance of scientific knowledge and the importance of his trained scientists, who are capable of contributing so greatly to the advancement of his company and of the general welfare. He is the spokesman for his entire staff before top management, before other departments, before industry, before the general public; and the spokesman for each of these publics when in direct contact with members of his staff.

The research director's job is one of the most difficult of all because it is the least understood by non-scientists. In many chemical companies, this situation is greatly helped by the appearance of more scientifically-trained men in the top levels of management.

It is always difficult to tell a man who is, or a company which is, mak-

ing a good profit that there are better ways of doing some things. But the research director must persevere in his efforts to gain proper top management backing for his department, and then to deliver the goods in the form of greater growth for the company in the face of present-day stiff competition.

The research director should persevere to the utmost to see that the following prerequisites to good research come into being and are constantly strengthened in his company:

(1) Top management really wants research, and realizes that research is not just a laboratory activity, but an overall company activity that requires all departments to contribute their best efforts towards maximizing R & D success, for the company's greatest growth.

(2) The top R & D officer is a co-equal member of all top committees and boards, and takes part in all company planning and in shaping broad programs.

(3) Broad objectives are clearly formulated, and made known to key personnel.

(4) Steady, increasing budget allotments for R & D are made, unaffected by fluctuations in general business conditions or in company yearly earnings, and unencroached upon by technical service and trouble-shooting problems.

(5) He will plan ahead for and secure proper people and facilities for his department. Of first importance are high quality personnel, imbued with energy and inventiveness. Other requisites include adequate space and laboratory equipment; specialized instruments applicable to areas of company interest; a good library; an administrative or business staff to control (record) project expenditures, progress and results; a market research and economic evaluation staff; a research personnel department; adequate patent and legal facilities; and the availability of outside consulting services when needed.

(6) Long-range planning will be a full-time function. Such groups will assist in proposing, evaluating, initiating, and studying the progress and results of R & D projects.

(7) An organizational plan will be established with adequate levels and opportunity for advancement in both scientific and administrative lines, to provide incentive to the research staff.

(8) Equitable salary administrative and other remuneration policies will be established, which are recognized by all as truly equitable, and which will attract and stimulate better men.

(9) The research director will seek to constantly improve his own ability to meet with and to communicate effectively with his own people, and with people from other departments and from top management.

(10) The research director will establish an atmosphere more and more conducive to creative work, and yet tinged with the right amount of a sense of urgency to lead to maximum efficiency.

These are the things a research director will strive for with all his might, for then he will be making his maximum contribution towards the success of his men and of his company.

Courage in the Crisis

At the time of frustration, when all seems blackest, is just the time to turn on that extra reservoir of energy and effort. Courage in the crisis will often cause the desired improved situation to come about. Thus periods of frustration are not to be abhorred. It may be going too far to say that they should be welcomed, but such periods, when they do come, can be the hearth that forges the future success.

A classic example of perseverance

is Robert "The Bruce" who, after having himself perhaps prematurely crowned as King Robert the First of Scotland, failed miserably in battle against the English and the opposing Scots six times. He was declared an outlaw and had to flee his country to an island off the coast. Three of his brothers were executed; his wife, sister and children had been captured by the English.

While resting in his desolate hideout, and wearily pondering his seemingly hopeless predicament, he chanced to observe a spider try to spin a thread across the space between two rafters, only to fall to the floor six times. Each time the little creature had to crawl all the way across the floor, up the wall, and back across the ceiling in order to make a new attempt. On the seventh effort, it succeeded.

Given new heart, spurred on by this incident, The Bruce returned to Scotland, rallied his supporters, and began a series of successful battles which culminated in the great rout of Bannockburn, June 24, 1314, drove out the English, and made possible a united and independent Scotland.

The great example from our own history is that most dismal winter of 1777-78 at Valley Forge. Washington's brilliant campaign of the previous winter, which forced the British out of New Jersey and back to New York, had backfired in a sense. During the summer, the British General Howe had circled by boat to the Chesapeake and then beat back the Americans at Brandywine Creek and at Germantown, permitting the capture of Philadelphia, capitol of the new United States.

The great fruit of the October victory in the north at Saratoga—the French intervention on the American side—would not ripen until the following Spring. The one-year enlistments were over; many soldiers returned to their homes. The lack of confidence in the Colonists' money was at its greatest. The low value of paper money prompted one Philadelphia barber to paper his shop with it. The cause of the American Revolution was at its lowest ebb.

While holding a position that was naturally impregnable, Washington's army of 9000 was forced to spend the bitter winter in log huts with little heat and poor clothing, and with a serious shortage of food and munitions. Over 1000 deserted to the warmth and social gaiety behind the British lines in Philadelphia; sickness and death took a terrible toll of 2000 more. Of the sufferings of his men at this time, Washington said, "Their marches might be traced by the blood from their feet!" Truly, in the words of Thomas Paine, "These are times that try men's souls!"

The loyal troops refused to quit, signed on for three more years, and stood guard in their hats to keep the snow off their often bare feet. The arrival in January of Frederick Wil-

liam Augustus Henry Ferdinand, Baron von Steuben, soon put new life into the camp with his geniality and good humor. More important, his brilliant drilling of the whole army in foot maneuvering and in bayonet fighting gave confidence and much-needed skills to the ever-stronger and more determined American forces. When Spring came they turned the tide of history.

Each of us has observed instances, on a more individual scale, of such courageous performance in some of our own acquaintances; possibly even we have risen to such occasions ourselves. Every great victory is first fought and won inside one's heart, before it can become a physical reality in the world outside us. Let us resolve to accept any such challenges the future may hold for us, in a way that will make our fellow chemists proud to have known us.

Summary

The pattern of perseverance is clear:

(1) **Make a plan**—specific to yourself and your circumstances, which is based upon:

(2) **Two-fold General Objectives:** (*a*) To give of yourself to help others. (*b*) To grow in your abilities, and then in your attainments.

(3) **Extra Preparation**—you are willing to exert to achieve your individual specific objectives.

(4) **Persevere.** Stick to your plan. Strive to your utmost, but remember, time is a necessary ingredient.

(5) **Review, Revise, and Renew** your determination at regular intervals.

(6) **Realize** that the higher you advance in position, the greater your responsibility; be prepared to persevere to the limit of your endurance.

These words come not from one who has reached the zenith of his career. Rather, they come from one who is only half way along, and who has not yet got where he is going. He thinks he has learned the right formula for the success he wants. He invites all, you younger people in particular, to follow this formula and to persevere through thick and thin, for the rewards are great. Through perseverance you will win your objectives.

The Personable Dr. Maurice J. Kelley

Lawrence Flett, Hon. AIC

Past President, The American Institute of Chemists; Consultant, National Aniline Division, Allied Chemical Corporation

SINCE Dr. Maurice J. Kelley is a very personable individual, it is a challenge to select those particular characteristics which seem, more than the others, to have influenced his career with the AIC.

First, he is a worker, an indefatigable worker. He must have always been a worker. He was graduated by LaSalle College with highest honors.

The INSTITUTE can take pride that he started his career in the AIC as a Junior member. From there he progressed, step by step, to Associate, Member, and finally Fellow in the INSTITUTE. The AIC has reaped a particularly rich reward from Dr. Kelley's early and continuing membership.

After joining Nopco Chemical Company, Maurice continued his studies nights and holidays at Fordham University, where four years later he was awarded the M.Sc. degree. Driven by an unquenchable thirst for chemistry, Maurice sought and was granted a leave of absence for 22 months, while he completed the work necessary for the Ph.D. at the University of Pennsylvania.

The closest association which Dr. Kelley and I have enjoyed has been in the work of the AIC. THE AMERICAN INSTITUTE OF CHEMISTS is little understood by many of this country's chemists. For almost 37 years the INSTITUTE has been the one vital force dealing with the problems of the chemist, particularly with those factors which contribute to the chemist's success and accomplishment. The AIC deals with human problems rather than scientific problems but the approach is the same.

When professional problems arise, which the individual himself cannot solve, the INSTITUTE encourages their discussion by meetings, conferences, committees, and particularly by publication. This is the same approach the chemists use in their science. The AIC publication, THE CHEMIST, has been particularly helpful. It is the one publication devoted to the profession of chemistry, rather than to the science and technology, and it enjoys an unbelievable readership. The bringing of people's thoughts together solves human problems as well as chemical problems.

It is obvious that such an approach requires much effort and organization. Maurice Kelley's ability to organize and get things done has played an ever-increasing role in the activity of the INSTITUTE. Not only has he organized his own work, first as an indispensable lieutenant and later as chairman of the New York Chapter and councilor, but he has taken constructive steps to give the AIC a better and more productive organization. His effectiveness as a worker has been mentioned, but more than that, he is a doer. He gets things done, because he has his efforts well organized. Such people are indispenasble in a group such as ours.

The professional problems which existed when the AIC started have been solved by INSTITUTE methods. The members of the INSTITUTE have been a propelling force in their solution. As old problems are solved, new ones always present themselves. Today's most serious problem concerns the shortage of chemists and more particularly its corollary, the problem

of making better use of the chemists we have. The more effective use of chemists also becomes an economic necessity in a world of rising experimental costs and rising costs of maintaining chemists.

Dr. Kelley and other members of the AIC have been seeking means of improving the chemist's accomplishments. Chemical research is, of necessity, inefficient. People who know estimate the efficiency at about 15%, which certainly seems to offer the prospect of improvement. Dr. Kelley has been a leader in approaching the problem. Demand for his series on "Creativity" published in THE CHEMIST has exhausted back copies of those issues, and it was necessary to supply reprints. *Chemical & Engineering News* also recognized his work and devoted a front cover to it. It is characteristic of Maurice that he is always planning and always looking toward the future.

Incidentally, the work which Maurice and other AIC members have carried on has borne fruit. The problem of the shortage of chemists has been corrected for the present, not by wailing and weeping, but by constructive thought and better planning.

It is unfortunate that chemists, who give so much thought to science, have so little inclination to turn their thoughts toward the very rewarding study of how the chemist carries on his career or what his duties are to society. The chemist's education was not paid for in dollars any more than college tuition discharges the chemist's debt to his educators. Money alone could not pay for the devoted work of teachers and educators. Here again, Maurice has been active in his duty to the community. Particular mention should be made of his efforts to bring to students a clever understanding of what a chemist in industry actually does.

So far we have looked into the corners of Maurice's creative mind. There is no language to tell what is in the heart. Such feelings are conveyed by looks, deeds, thoughts, and the little understood extra senses. If it were possible to peer into the soul of this modest God-fearing man, we would find a great unprobed depth of kindness, graciousness, and compassion with never an unkind or evil thought. That is the fuel which kindles his devotion. All chemists are richer for their share in the friendships and service which that devotion has made possible.

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Dr. Maurice J. Kelley— The Professional Man

Dr. Lincoln T. Work, F.A.I.C.

Past President, The American Institute of Chemists; Consulting Engineer, 36 West 44th St., New York 36, N. Y.

(Presented when Dr. Kelley received the Honor Scroll of the New York AIC Chapter, May 28, 1959, New York, N. Y.)

THE gentleman of whom I speak is better known to us as Ace Kelley. How did he get that nickname? What is its meaning? One may conjure in his mind that he soared to heights (and such is the case), and that he shot down vast numbers of the enemy (such is hard to believe of this kindly man). Perhaps we can have better luck with games. Could it have been in baseball, basketball, golf, or bowling in which this studious man has shown real skill? Perhaps, but it makes a better story to try our hand with the cards.

It is said that man's life history is portrayed in the cards: hearts, diamonds, clubs, and spades. But which ace best portrays this man? While we would not neglect his kindly heart, it seems that the ace of spades best describes him in his profession.

The spade is a tool that has helped to make America great. Think of the agriculture, mines, highways, railroads, and canals of our early history, made possible with the spade and the men willing to use it. Though we have developed great earth-moving equipment in recent years, the spade remains symbolic of great achievement made not with rush and bustle but with steadily applied effort; not with sitting at a desk and giving orders but with an almost frustrating application of hard work; not with the random scattering of earth to the winds but with a plan developed in the mind of man to do some great thing. The unity of purpose, the directed effort, the quiet application of hard work, and the production of substantial results typify this man. He has chosen his response to this award to be this thought which is deep in his being.

His professional experience in the world of business has been with Nopco Chemical Company, where he has risen to the post of director, Project Co-ordination Department of the Chemical Development Division. One may wonder if he saw this ahead when at the Commencement ceremonies in 1936 he was awarded the degree of Bachelor of Arts. As a winner of a competitive scholarship for his college years, as recipient of several Commencement Day awards during those years, and as a graduate with highest honors, he gave early indications of a successful career in chemistry. It can reasonably be suspected that the man who found him for Nopco was

happy with his success.

His work with Nopco (then National Oil Products Co.) began right after that and he was a research chemist there until 1944. During that time he studied more, with organic chemistry his major and physical and physiological chemistry as minors. He was awarded the degree of Master of Science in 1941, and the degree of Doctor of Philosophy in 1942. His dissertation was on the "Preparation of Some Imidazoles as Potential Central Analgesics."

His career from 1944 has involved supervision of others. He was chief chemist, Sales Development Laboratory, and until recently director, Industrial Specialties Laboratories. In 1958, he was appointed to his present position.

In the area of synthetic organic chemistry as related to new product development, he has had experience in the operation and management of research and development, in technical service, in market research and chemical process surveys, with pilot plants, and in patent matters. The array of fields in which he has generalized or specialized knowledge is impressive. Synthetic organic chemistry, nitrogen compounds; surface active agents; oil and fat derivatives; synthetic resins; ethylene oxide condensates; agricultural chemical emulsifiers; metallic soaps; metal processing chemicals; adhesives; synthetic medicinals: In all these this man has worked and has developed some specific skills. Lest this seem overly diverse, there is a unity in what he has done in that it is tied to the company's lines of business effort.

Nine U. S. patents and seven articles are an impressive record of those matters on which he was free to publish. The articles range from the *Journal of Commerce* to *Chemical & Engineering News,* with several on professional matters in our own CHEMIST. The latest, a series in THE CHEMIST, is a treatise on "Understanding the Creative Process."

He is listed in *American Men of Science, Chemical Who's Who, Who's Who in the East, Who Knows —and What.* The societies of which he is a member are typical of his breadth: American Chemical Society, AIC (Fellow), American Association for the Advancement of Science (Fellow), The Chemical Society (London) (Fellow), Society of Chemical Industry, Chemical Market Research Association, and the American Oil Chemists Society. He is a member of The Chemists' Club.

As a member of our own INSTITUTE, Ace Kelley has given untiringly of himself for the profession. His has been a growing contribution since 1945 when he served on the arrangements committee of the New York Chapter under the chairmanship of John Miskel. He then served as chairman of the Committee under the Chapter leaderships of Miskel, Flett,

and Martin Meyer. He designed the Honor Scroll which he now receives. He was Chapter secretary-treasurer from 1948 to 1950 and was its chairman for 1950-1. In this latter capacity, he was an important factor in the AIC employment agency. He has since served as national councilor and has been on national committees.

It is about one such committee that I speak from personal knowledge and with deep appreciation—the National Committee on Manuals. Early in my own presidency of the AIC, I became aware that the annual changes of officers in the chapters had resulted in lost effort. The officers often did not know their routines, and in some cases, actually permitted potentially serious violations of the Constitution and By-laws. We needed an instruction book for the Chapters, and one for the national officers and Council as well. Ace was made chairman of this new committee which had members from around the country. First, there was a Chapter Manual, developed as a trial draft, reviewed and revised by correspondence within the committee. The improved version was tested on the Council and further revised. Finally, after hard work persistently and carefully done, he offered the committee's report. It was accepted, printed, and circulated and has been of great help.

Then, undaunted by the magnitude of that effort, he did the same for a national officers' and councilors' manual. Now we have a comprehensive procedural guide, detailed but not dogmatic, which has made possible faster and more effective functioning in one easy lesson. If all new officers and council read their homework, all is well with the INSTITUTE. We are indebted to Ace Kelley for leadership in this work—a job done quietly and perseveringly until a goal of a high quality result was attained. This is typical of the Ace of Spades.

The American Society for Testing Materials, Philadelphia 3, Pa., is holding its 3rd Pacific Area National Meeting at the Sheraton-Palace Hotel, San Francisco, Calif., Oct. 11-16, 1959.

Presentation to Dr. Kelley

THE New York AIC Chapter presented its Honor Scroll for 1959 to Dr. Maurice J. Kelley, director, Product Coordination Department, Nopco Chemical Co., Harrison, N.J., at a dinner meeting held May 28, 1959, at the Hotel Shelburne, New York, N. Y., preceded by a reception through the courtesy of Nopco Chemical Company.

George F. Foy, manager, Commercial Development, Shulton Fine Chemicals, Clifton, N. J., and chairman of the Chapter, presided. Speakers for the honor recipient were Lawrence Flett, consultant, National Aniline Div., Allied Chemical Corp., New York, N. Y., former AIC president, and Dr. Lincoln T. Work, consulting engineer, New York, N. Y., former AIC president.

The Scroll was presented by Mr. Foy. Dr. Kelley responded with an address on "Perseverance—the Sinew of Life." (See preceding pages for these talks.)

The citation to Dr. Kelley reads:

Without fanfare, his thoughtful and constructive services are marked in every phase of the Institute. His quiet warm friendship, his high professional and ethical standards, and his tireless efforts for his fellow chemists fully merit this recognition.

"Engineers Joint Council supports in principle the creation of a cabinet-level Department for Science and Engineering, basically at the administrative level, the better to serve our national economy and our national defense, but we would emphasize that science and engineering, directly pertienent to the missions of certain departments, must continue to be carried out within these departments."

—Enoch R. Needles,
President, EJC

Stanford Research Institute is holding an international symposium on "High Temperature Technology," Oct. 6-9, at Asilomar Conference Grounds, Monterey Peninsula, California.

The Dawn of the AIC

THE AMERICAN INSTITUTE OF CHEMISTS was founded in 1923, but preliminary discussions leading to its formation were held in 1920 by the New Jersey Chemical Society, which was the predecessor of the North Jersey section of the American Chemical Society.

Dr. Frederick W. Zons, AIC Charter Member, referred to these early discussions when he accepted the plaque presented, at a testimonial dinner to him, by the New York and North Jersey Sections of the ACS. (See THE CHEMIST, June 1959, p. 201.)

In more detail, Dr. Zons has provided the following account of these early activities:

At the meeting of the New Jersey Chemical Society held October 11, 1920, Dr. Archibald Craig of Ledoux & Co., an instructor at Newark Technical School, spoke in somewhat humorous vein on suggestions that analytical chemists improve the status of their profession.

Dr. Frederick Crane, member of the Board of Governors and chairman of the Program Committe of the New Jersey Chemical Society, who had given the subject much thought, gave a talk on what he considered an "urgent need." He suggested the formation of an "Institute of Chemistry," which would vouch for and guarantee the qualifications of its members. This discussion aroused the interest of a number of people, including Dr. Craig, Messrs. Sydney Davis, Pastene, Cudroff and Zons.

On motion made by Dr. Crane and seconded by Mr. Benjamin, it was resolved that a committe of three be appointed to consider the feasibility of an organization to be termed the "American Institute of Chemistry." President Carleton Ellis appointed Dr. F. D. Crane, chairman, Charles P. Titus and George T. Cottle.

The activity of the committe provoked much interest. It prepared a questionnaire which covered the following material, on which the committee reported, January 10, 1921:

The American Institute of Chemistry could:

(1) LIST on request, and without charge (*a*) all persons who wished to be considered Chemists, in any sense of the word; (*b*) List all chemical products; (*c*) all chemical industries, these lists to be public.

(2) REGISTER, any chemist who would furnish a certain amount of definite accurate information as to education and experience, such information and all other pertinent facts to be subject to independent investigation, and to be available to inquirers under reasonable regulations. For registration a moderate fee would be charged.

(3) CERTIFY, Chemists of various kinds of chemical education and experience after the candidate had passed a definite examination suited to the grade of certificate desired. For these examinations reasonable fees would be charged.

(4) LEGALIZE the practice of chemistry in its various grades by securing the proper legislation in National and State Legislatures.

(5) CO-OPERATE with all institutions training chemists in order to harmonize courses of instruction, and with institutions and chemical societies to interest employers in properly trained chemists, without however acting as an employment agency.

Such an Institute of Chemistry would, in the first instance, consist of a self-perpetuating body of, say fifty chemists, nominated by the existing chemical organizations, with the understanding that after 5 years, one-half the vacancies would be filled from the Certified Chemists, after 10 years all vacancies would be so filled.

We would be glad to have your definite opinion upon the following:

(1) Should an Institute of Chemistry be established? If so (*a*) should it function as outlined. (*b*) What else, if anything, should it do? (*c*) Should it be constituted as outlined? (*d*) How should it be financed? If not: Should anything be done? If so (*a*) What?

To print this in our *Bulletin* (of the New Jersey Chemical Society) seems the best way to get it before each of our members, and everyone who reads this is asked to consider this personally addressed to him and to send the committee his views, favorable or not—there is space for both—and any suggestions he may care to add. This Society is not trying to "put something" over but it is trying to determine the real need and how best to meet it.

While this was being done, several chemical publications in the metropolitan area commented on the New Jersey Chemical Society discussions on the proposed "Institute of Chemists." *Chemical Age* devoted several pages to approval of the plan, while *Chemical & Metallurgical Engineering* editorially disapproved of the suggestion, in February, 1921.

The following April 11, the Committee made another report on the "Possible Institute of Chemistry" to the members of the N. J. Chemical Society:

Your Committee prepared a tentative scheme and gave it fairly wide publicity, sending it to the journals and prominent chemists and discussing the matter with many. From the printed and written comments and conversations it appears that there are three groups of opinions:

(1) That an American Institute of Chemistry is not needed.

(2) That an Institute of Chemistry should exist as an adjunct to, or function of the American Chemical Society. No one holding this view points out how the ACS could so function and we are advised to bring the matter to the attention of the officers and council, as was done about 15 years ago.

(3) That an Institute of Chemistry, to function in general, as outlined, is needed; that it should be started by the N. J. Chemical Society, beginning in New Jersey and showing by experience its advantages and developing working plans adopted to the entire country.

Your committee recommends:

(*a*) Anything done should be handled locally, by the N. J. Chemical Society and not by a new organization.

(*b*) That in view of the fact that even the simplest listing, etc., will require time and money, the entire matter be referred to the Board of Governors for further action.

The Committee extends to all who have answered its questions their hearty thanks for the interest taken in the matter.

—George T. Cottle
—C. P. Titus
—F. D. Crane, *Chairman*

Dr. Crane later reported to the Board of Governors on behalf of the Committee (May 10, 1921):

Your Committee, in asking that the entire matter of the so-called Institute of Chemistry be referred to the Board of Governors was in no sense avoiding responsibility. We felt that if we went ahead, we must have behind us, not a mere *viva voca* vote, taken in the midst of a general meeting, but the well-considered approbation of a majority of

the members of the Society. We believe that if we have this it is well worth the time and labor, to say nothing of the expense, to list all the chemists and chemical industries of the State, and we believe we can offer registration also to those who wish to submit their qualifications and claims to inspection and a checking-up process. As to the possible examinations which seem to so greatly interest a few, we do not think that they are of immediate importance. But one of the greatest advantages of starting this movement as a State affair will be that we will have already for us all the required machinery in the form of our State College. We likewise believe that any steps towards regulation or legalization are not to be taken at once and that this action should properly await the mature judgment of those chemists who are willing to take the preliminary burden of organization.

In answer to question, Dr. Crane said that if anything was to be done as a result of the labor already expended, progress should be made at once; to leave the matter till next Fall would be fatal. There was now considerable interest in the matter, which should not be allowed to dissipate.

Mr. Titus then spoke at length regarding the discussions which had taken place in this Committee and remarked that both Mr. Cottle and himself did not feel that the Society was as yet in a position to back the project financially. He thought, however, that the undertaking should be carried out by the Society and not through the organization of a special Institute. He urged that the matter of organizing this undertaking be deferred until the Society was able to employ a paid secretary with proper headquarters.

After further discussion it was resolved that Dr. Crane be empowered to send out questionnaires looking to the registration of chemists and chemical industries of the State of New Jersey.

(NOTE: The AIC was founded two years after these preliminary activities.)

The average professional income of engineering teachers has risen 8.3% since 1956, and their basic teaching salaries have increased 13.5%. The complete report, entitled "Salaries and Income of Engineering Teachers, 1958," is available from Engineers Joint Council, 29 W. 39 St., New York 18, N. Y. for 25 cents.

"The petroleum industry is facing a period of vigorous expansion in Europe and the Middle-East, which is sure to mean unusual opportunities for alert American and European petrochemical and petroleum companies."

—Dr. Giorgio Varvaro, *President*
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Communications

A Laboratory Assistant Is Not A Chemist

The Twin City AIC Chapter has sent the following letter to an employment agency which advertised in a local newspaper:

> "Jr. Chemist. $1.90 Hr. Immediate opening for H.S. grad with 1 year college inorganic chemistry."

Gentlemen:

We, who are professional chemists, object to the use of the title "Chemist" in your advertisement. The title "Chemist," whether modified by the term, Junior, or any other modifying word, indicates a person holding a college degree in a chemical curriculum. To call a high school graduate with one college chemistry course a "Chemist" is unfair to him as it gives him an erroneous impression of his worth. An employer, who hires such a man, expecting that he is employing a chemist, will be disappointed and receive an incorrect idea of the value and ability of a Chemist.

The salary offered in your advertisement indicates also that you are not looking for a Chemist. Young men just graduated from college with no experience (a Junior Chemist) would expect at least $100 or more a month higher than the pay you offer.

Your advertisement describes perfectly a Laboratory Assistant or perhaps a Laboratory Technician, but not a Chemist.

Speaking for the Twin City Chapter of THE AMERICAN INSTITUTE OF CHEMISTS, we object to the wording of the advertisement as placed. We have passed over previous similar advertisements as a slip on your part. We ask that, in the future, you use the correct terminology in your advertisements.

—Dr. J. F. Abere, Chairman
Twin City Chapter, AIC

A Sad Yet Happy Letter

To the Editor:

In the June 1959 issue of THE CHEMIST, p. 238, I read with great interest a letter to you by Dr. Stephen D. Bruck, F.A.I.C. It is a sad letter but also a happy one. Sad, that in the 20th Century there is possible such an influencing of our free press by one pressure group . . . who pretends to know all but who pirates the chemist's work, labors, and ideas; who benefits so immensely by the ignorance of the man in the street (and his hero worship) but does nothing to remove or abolish this ignorance, even adds to it by false and pretentious slogans, T.V. programs, and the like.

Sad indeed this letter is; but also happy because finally, it seems, we are realizing what goes on around us. We ourselves are awakening after receiving shock after shock. Here and there are signs of progress, immensely slow, infinite in magnitude, but nevertheless quite definite and positive. It is

only we who can help to remove this injustice. We are just starting to realize that the eyes of the world are upon us, and that we had better do something about it.

In the enclosed University brochure you will note that Ph.D.'s are not listed as "Dr." (but M.D.'s are). I corresponded with the Dean a year ago about the misguided form of these brochures, but what good did my correspondence do? We certainly cannot force progress, but it will come in its own time, for come it must . . .

—Dr. Otto E. Lobstein, F.A.I.C.
Pacific Palisades, Calif.

"What Is A Profession"

To the Editor:

May I call attention to an article on "What Is a Profession?" in *Science,* Vol. 129, pp.688-9 (June 6, 1959), by W. W. Benton, F.A.I.C., who cites THE CHEMIST—35, No. 4, 125 (April 1958)—and refers to the AIC Code of Ethics favorably.

—Dr. Rudolph Seiden, F.A.I.C.
Kansas City, Mo.

Wonderful Article

To the Secretary:

(Please send) nine more copies of Dr. Maurice J. Kelley's "Understanding the Creative Process." (Reprint of a series in THE CHEMIST.) This is a wonderful article.

—G. Herbert True
South Bend 17, Indiana

Dr. G. Frederick Smith, F.A.I.C., professor emeritus, University of Illinois, has been awarded the Seventh Annual Anachem Award for outstanding contributions to analytical chemistry, by the Association of Analytical Chemists. Presentation will be made during the Anachems Conference to be held Oct. 26-28, at the McGregor Memorial Conference Center, Detroit, Mich.

Dr. Oliver M. Morgan, F.A.I.C., has been appointed assistant to the executive vice president of Allied Chemical Canada, Ltd. He has been director of chemical sales for National Aniline Division of Allied Chemical since 1955.

Dr. L. T. Eby, F.A.I.C., Market Development Division, Enjay Co., Elizabeth, N. J., served as the AIC delegate to the inauguration of Dr. Mason Welch Gross as president of Rutgers—The State University, held May 6, at New Brunswick, N. J.

W. Alex Jordan, F.A.I.C., announces that Robert L. Davidson has been named executive associate of W. Alec Jordan Associates, 290 Park Ave., New York 17, N. Y.

Monica Nees, A.A.I.C., Student Medalist from Roosevelt University, Chicago, Ill., in 1958, received the M.S. degree from this university in June, and is working as an organic research chemist for the Applied Physics Laboratory of The Johns Hopkins University at Silver Springs, Md.

Annual Reports

(Presented at the 36th Annual AIC Meeting in Atlantic City, N. J.)

Report of the Committee on Employer-Employee Relations

More Study Needed on Contracts

The committee has given consideration to the suggested changes in the *AIC Proposed Contract* referred to the Committee by the Council at the October 14 meeting, and published in THE CHEMIST, November 1958, page 481.

The committee finds merit to the proposed changes but are aware that changes can be suggested for any contract and reasons for and against the changes can always be advanced. The committee who drew up the present *Proposed Contract* went to considerable effort to have their proposals reviewed by representatives of many corporations. In view of this, your committee at their several meetings has given consideration to the purpose of the contract and its effect on Employer-Employee relations. Discussions have been held with other members of the AIC. While the committee's survey is far from comprehensive, the following salient facts appear to be true:

1. Most chemists dislike the contracts they are asked to sign but sign them to avoid any show of an uncooperative nature.
2. The fact that chemists are asked to sign contracts while other employees who have access to confidential information are not, is a reflection on the chemist and a point of doubtful Employer-Employee relations.
3. Much of that which is written into a contract is a recitation of conditions expected under common law, but is included to inform the chemist.
4. There has not been a general acceptance of the AIC Proposed Contract.

The committee has had a general discussion of the possible improvement in Employer-Employee relations by proposing that Corporations provide the chemist employee with a brochure explaining what is expected of the employee and employer under existing laws. The contract, where necessary, could then be reduced to a minimum and, except in special cases, the chemists' contract need be no more exacting than those required of other employees with access to confidential information.

Exploratory discussions were held with individuals in the MCA concerning the possibility of developing a contract which would find more general use but the opinion was expressed that this was outside of the scope of activity of the MCA.

As long as contracts are a source of unpleasant relations between chemists and their companies it is recommended that study of this matter be continued until a mutual satisfactory answer is found.

—Lawrence Flett, *Chairman*
—Wm. Auchincloss
—O. B. J. Fraser

Report of the Committee on Professional Education

What AIC Members Can Do

Nowadays it is as unfashionable not to be concerned with education as not to drive around in an air-conditioned Cadillac in Texas. Tons of books and trainloads of other printed material have appeared on the subject. Out of this welter your Committee has tried to select practical steps which the members of The American Institute of Chemists can follow in their own communities, or at their alma mater.

We recommend first, the reading of the *American High School Today* by our fellow chemist, Dr. James Bryant Conant, Hon. AIC. This is a cautious middle-of-the-road program which lists a number of practical measures that each of us can take. Also, *Education and Freedom* by Admiral H. G. Rickover. The Admiral is more extreme than Conant but his discussion is cogent. He has an excellent passage on the nature of a profession and a good bibliography. His proposal of special experimental High Schools is less in the American spirit than Conant's *Comprehensive High School.*

There is a Council For Basic Education with offices at 725 Fifteenth St., N. W., Washington, D. C., which publishes a very salty little monthly Bulletin. Among the members of the Council are: Roger Adams, Hon. AIC, and Joel Hildebrand, Hon. AIC. The cost of membership is $5.00 per year, but this is little enough to spend in this fight on which our country's future, and our future taxes depend.

One of our Committee members has initiated a study of the distribution of courses, and the cost per pupil, in a handful of High Schools and in a State University. This is something each of us can do. Obtain from the school under study, a list of all courses offered, a list of all personnel, total number of students, what they teach or do, and total budget. Separate the courses into "basic" and "non-basic" (how to do it courses), and calculate the percentage of each; divide the teachers between the two groups. The pupil cost is just a matter of long division. Then send your findings to the Committee and receive our thanks and our summary. Incidentally, your local newspaper will be glad to have this information. So far the division for High Schools is approximately 40% basic and 60% non-basic courses.

Then judge for yourself if basic education cannot be improved without the expenditure of more billions. Remember, the wheel that squeaks the loudest, gets the most grease. Good luck!

—Karl M. Herstein, *Chairman*

Report of the Committee on Legislation Affecting Chemists

The Committee on Legislation Affecting Chemists and Chemical Engineers has the following report to offer for the Annual Business Meeting, May 7, 1959:

During the past six months the Chicago and New York Chapters have discussed the possibilities of licensing chemists with members of their state legislatures. Although these attempts are in the right direction, the Committee feels strongly that licensing on a state level is not entirely the answer. Further, it is believed that state licensing will not satisfy the majority. This was clearly shown when Illinois tried to license chemists in 1945.

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Do You Want A National Licensing Board?

It is our opinion that a National Licensing Board, similar to the Medical and Dental National Board, will be highly desirable to raise the chemists economically and in their standing in the community. If such a board is created, its policies should be formulated by the participating societies, and applicants will be subjected to one fee at the time the permanent license is issued. Also, practicing chemists will be blanketed in.

The Committee requests an open discussion on this subject during this Annual Business Meeting. Also, the Committee would like to be informed how far the National Office will go if such a program is initiated.

The Classification of Federal Employees

The Committee on Legislation has been working with the National Society of Professional Engineers and other scientific societies in the joint effort to pilot Federal Legislation designed to separately classify

Federal Professional workers. The Committee on Legislation of the Washington Chapter has reviewed Senator Langer's bill (S-2478) together with similar bills introduced in the last session of Congress, and is satisfied that this bill generally accomplishes the expressed purposes outlined therein. The Senator was informed that in addition to establishing a Scientific and Professional Schedule the bill should set up a uniform entrance grade and relieve a certain amount of compression in the salary scale of new employees and those with many years of service. It was pointed out that at present, in the scientific and engineering fields, some agencies are hiring employees with four years of college at the GS-7 grade while others are hiring persons with the same education and training at GS-5 grade. Likewise rapid promotion in Grades 5, 7, and 9, to make them competitive with the pay scale of private industry has not been carried out in Grades 12, 13, 14, and 15, so that recent employees reach Grade GS-11 fairly quickly and thus have nearly the same salary range as employees with long years of experience. A detailed revised scientific and Professional Pay Schedule was submitted. The Committee requests an open discussion on this subject during this Annual Business Meeting.

Also, the National Office should be advised that the AIC officers presently carrying out this work are limited by Federal regulations governing their participation in Federal Legislation. In addition, it should be noted that the tax status of gifts to the AIC will change, if we register as lobbyists or influence legislatures beyond a reasonable range.

—Maynard J. Pro, *Chairman*

Report of the Secretary

We have welcomed 163 new members, 124 of whom are Fellows, into the AIC between April 1958 and February 10, 1959. Those qualified persons who have applied for membership since February, when the most recent Council Meeting of the 1958-59 fiscal year was held, will be elected at the May 6 meeting of the Council, and are, therefore, not included in this Annual Meeting Report, but will be included in the report for the next fiscal year.

Our greatest loss in membership occurred among the Associates, many of whom left graduate schools to enter industrial life, or changed positions, but failed to give us changes of address. Thus it was necessary to drop some of them for "missing addresses."

Honorary Memberships

Honorary AIC Membership was conferred on the following Fellows this year: Dr. Lloyd A. Hall and Dr. Foster D. Snell. The 1958 Gold Medalist, Lawrence Flett, was already an Honorary Member at the time he received the Gold Medal, and so the customary award of Honorary Membership to the Gold Medalist was not possible.

Necrology

It is with deep regret that we record the following deaths among our members:

Jerome Alexander, Hon. AIC
Dr. Edward Bartow, F.A.I.C.
Kenneth R. Brown, Emeritus
Judge J. W. Crawford, Emeritus
Dr. J. M. Dalla Valle, F.A.I.C.
Mark W. Eichelberger, F.A.I.C.
Dr. Paul M. Giesy, F.A.I.C.
Robert J. Gnaedinger, F.A.I.C.
Leonard F. Hatfield, F.A.I.C.
Dr. Harry N. Holmes, Hon. AIC
Dr. A. Stuart Hunter, F.A.I.C.
Dr. Vladimir A. Kalichevsky, F.A.I.C.
James F. Maguire, F.A.I.C.
Dr. Lewis H. Marks, F.A.I.C.
Dr. Ira E. Neifert, F.A.I.C.
James G. Park, F.A.I.C.
Harry S. Pickering, Emeritus
Dr. Gustave T. Reich, F.A.I.C.
Robert S. Sheie, M.A.I.C.
Dr. Marvin O. Shrader, F.A.I.C.
Leon Sternberg, M.A.I.C.
Dr. E. A. Vuilleumier, F.A.I.C.

Cooperation With Other Societies

A resolution of support for the American Chemical Society's project for a new headquarters building was presented to the 35th Annual AIC Meeting by the Council and was approved by the members.

AIC Social Hours were held in connection with the American Chemical Society's National Meetings in San Francisco, Chicago, and Boston, thus providing an opportunity for AIC members attending

the ACS conventions to meet and renew friendships, and make new ones.

The Council of the American Chemical Society invited the AIC to establish official liaison with the ACS Committee on Professional Relations and Status. Accordingly, the ACS appointed Dr. Frederick G. Rossini of Carnegie Institute of Technology, Pittsburgh, Pa., to attend the AIC National Council meetings, and Dr. Ott appointed Dr. Johan A. Bjorksten, F.A.I.C., of Bjorksten Research Laboratories, Madison 1, Wis., to attend meetings of the ACS Committee on Professional Relations and Status.

The following were appointed representatives from the AIC to the Council of The American Association for the Advancement of Science: Dr. Wayne E. Kuhn and Dr. Lloyd Van Doren, with O. B. J. Fraser and Dr. John H. Nair as alternates.

The following representatives from the AIC to the Perkin Medal Committee of the American Section of the Society of Chemical Industry were appointed by the Council: Dr. Emil Ott and Dr. Henry B. Hass, with Dr. John H. Nair and Dr. Lloyd Van Doren as alternates.

Amendment to Constitution

The Council voted to submit to the Fellows of the AIC for balloting an amendment to the Constitution which would permit Associate members to vote for officers and on all matters except on amendments to the Constitution. The results of the vote were in favor of this amendment.

Revision to Code of Ethics

A number of inquiries indicated a need for clarification of Point 11 of the Code of Ethics. The Committee on Ethics recommended that Point 11 be revised to read:

"He shall not use any unfair, improper, or questionable methods of securing professional work or advancement."

This revision was approved by the Council.

The Code of Ethics in a form suitable for framing is now available at $1.00 each.

Membership Dues

The increase in first class postage of 33-1/3%, increases in other postage rates, and the constantly increasing costs of materials and services, all necessitated a moderate increase in dues, to take effect at the beginning of the fiscal year 1959-60. Accordingly, the By-laws were amended to change Fellow's dues to $15.00 (from $12.50); Members' $10.00 (from $9.00), and Associates' $5.00 (from $4.00). This increase will be shared with the Chapters, which are likewise affected by increased mailing costs. Beginning May 1959, Chapters will receive as rebates for paid-up members $1.25 for each Fellow; $1.00 for each Member, and $1.00 for each Associate. This compares with previous rebates of $0.84, $0.56 and $0.16 respectively.

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Student Medals

The Chapters awarded a total of 154 Student Medals to outstanding college seniors in the Chapter areas. The list of medalists appears in the December 1958 CHEMIST.

The winner of the Student Medalist Essay Contest for 1958 was Robert B. Smith, Student Medalist of the Chicago AIC Chapter. His paper was published in the December 1958 CHEMIST.

Chapters

Our President, Dr. Emil Ott, has visited most of the Chapters this year to provide direct contact between the National office and the membership.

Four new Chapters were welcomed into the AIC during the year: The Delaware Chapter, the Piedmont Chapter, the Midwest Chapter, and the Southwest Chapter, which will give more AIC members an opportunity to participate in various AIC

activities. The Committee on Chapter activities, headed by the energetic Martin B. Williams, is assisting with the formation of several more Chapters, some of which will be ready for admission at this Annual Meeting.

Many of the Chapters have completed a year of successful accomplishment, which will be shown in their individual reports. The newly-created Delaware, Midwest, and Piedmont Chapters have distinguished themselves for interesting activities and attendance, though the Twin City Chapter with its record of regular attendance by nearly two-thirds of its membership, has yet to be surpassed. The Washington, Chicago, Alabama, New York and New Jersey Chapters, and others, have also held outstanding meetings.

Status of Members

Some of our Members and Associates have been in the AIC long enough to have acquired the necessary experience for transfer to a higher rank of membership. A slip will be enclosed in the dues' statements to such Members and Associates suggesting that they send in an application to be raised.

Committees

The various Committees, most of which will report their activities in separate reports, have worked diligently and effectively this year. Among these may be mentioned the Committee to Implement AIC Objectives, Dr. Lloyd A. Hall, Chairman, which submitted its report at the beginning of the fiscal year; the Committee on Legislation, Maynard J. Pro, Chairman, which kept track of local and national legislation affecting scientists; the Committee on Constitution and By-Laws, Benjamin Sweedler, Chairman, which studied the constitutions of the new Chapters and also passed upon matters concerning the National Constitution; the Committee on Chapter Activities, already mentioned; and those appointed as tellers for the arduous task of counting over 1000 nomination and election ballots for the 1959 elections—Robert R. Dean, and Marcus Sittenfield.

A new Committee on Public Relations was appointed this year, with Richard L. Moore as Chairman. He is making available to the AIC many public relations services, without cost, which would not be available to us otherwise.

The 35th Annual Meeting

The Western Chapter was our host for the 1958 Annual Meeting, held for the first time in the Far West, at Los Angeles, California, April 9-11, 1958. This 35th Anniversary meeting was distinguished by outstanding speakers, warm Western hospitality, good fellowship, and perfect weather. Our past president and Honorary Member, Lawrence Flett, received the 1958 Gold Medal.

In Appreciation

At the 35th Anniversary Meeting, a resolution of appreciation to those of our Charter Members who were still with us was adopted. Dr. Ott sent to each a letter conveying this expression of our regard.

We express our deep appreciation to all those AIC members who have given their personal time and effort, through Chapters, Committees, or in individual service, to advance the professional status of chemists and chemical engineers.

To our President, Dr. Emil Ott, we express our appreciation for his conscientious effort and his real interest in people, which have enabled him to advance the objectives of the AIC during this year of accomplishment.

—Lloyd Van Doren, *Secretary*

The Food Law Institute, through **Dr. Bernard L. Oser,** F.A.I.C., president, Food & Drug Research Labs., New York, N. Y., has suggested to the American Standards Association, that common names, agreed upon by a consensus of the national associations of food companies, additive manufacturers, consumers, and government agencies, be substituted for the chemical names of food additives on food labels, "so the housewife will not have to learn organic chemistry."

Opportunities

Doris Eager, M.A.I.C.

Positions Available

Plastics: Epoxy resins and/or related materials. Good organic or high polymer background. Ph.D., creative, capable of working independently, able to supervise others, upon expansion of department. Also B.S. or M.S. for supervised research. Box 81. THE CHEMIST.

Development/technical service work. Food chemists with three to five years experience with food manufacturer. Box 83, THE CHEMIST.

General Purchasing Department, large chemical firm, needs technically trained man, 5 or more years experience in petroleum industry, interested in commercial phases of business. Purchase of refinery products for company's plants. Consult with users, prepare specifications, solicit offers and quotations, negotiate contracts, some travelling. Location New York. Box 85, THE CHEMIST.

Ph.D.s, 1-5 years industrial experience, in (1) organic-biochemical-proteins, fats, starches, nutrition. (2) Pharmacology/experimental physiology, strong background in biochemistry. (3) Physical & organic chemistry. (4) Chemistry & technology of proteins (food uses). (5) Biochemistry, extensive nutritional background, with flair for writing. Metropolitan New York. Box 87, THE CHEMIST.

Senior Chemist. B.S. or better, 7-10 years' experience in physical organic or physical research and development for work on new concepts for isotope utilization, design and construction of new chemical analytical instruments. Salary $825 per month. New England, Box 89, THE CHEMIST.

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Chemists Available

Chemist-Technician. B.S. in Chemistry-Bacteriology, seeks part time in suburban Philadelphia area. Box 80, THE CHEMIST.

Instrumental Analyst: Infrared, ultra violet, near infrared. Rounded background in modern analytical technics. F.A.I.C. Responsible administrative position desired. Box 82, THE CHEMIST.

Chemical Books Abroad

By **Dr. Rudolph Seiden, F.A.I.C.**

Benno Schwabe & Co., Basel (Intercontinental Medical Books Corp., New York): *Pharmakologie,* by K. O. Moller; 3rd ed., 902 pp. (50 ill.); $16.25—Translated from the Danish, this textbook gives an up-to-date review of the theoretical basis of rational pharmacotherapy; with over 4000 literature references.

Vulkan-Verlag, Dr. W. Classen, Essen: *Physikochemische Grundlagen der Speisewasserchemie,* by H. E. Hoemig; 1959, 255 pp. (70 ill.); DM54.—Probably the first treatise dealing with the physicochemical fundamentals of boiler water chemistry.

Hippokrates-Verlag, Stuttgart: *Rezeptbuch der Pflanzenheilkunde,* by L. Kroeber and H. Seel; 11th ed., 288 pp.; DM 22.50.—The chemical, pharmacological, and pharmaceutical properties of the active ingredients of plants are described. The book's formulary includes 539 prescriptions.

Editio Cantor, Aulendorf/Wuertt.: *Rote Liste* 1959. A 1115-page book with important information about the drugs manufactured by the German pharmaceutical industry.

Alfred Huethig Verlag, Heidelberg: *Einfuehrung in die makromolekulare Chemie,* by H. Batzer, with a foreword by Prof. H. Staudinger; 1958, 234 pp. (30 ill.); DM 19.80.—The synthesis, isolation, characterization, identification, technical

properties, and utilization of macromolecular substances are briefly discussed. • *Brandlehre und chemischer Brandschutz*, by L. Scheichl; 2nd ed., 448 pp. (47 ill.); DM 28.—A thorough study of the chemistry, thermodynamics, and kinetics of the various types of combustion as well as a description of procedures for chemical fire prevention and of chemicals used for extinguishing fires.

Akademische Verlagsgesellschaft Geest & Portig, Leipzig: *Zeitschrift fuer physikalische Chemie, Sonderheft July* 1958, 302 pp.; paperbound DM 32.—A special issue of this journal, containing 28 papers which were presented during the international symposium of polarography, held in Dresden in June 1957.

Vincent C. Vesce, AIC Charter Member, technical director since 1924 for Harmon Colors, National Aniline Division, Allied Chemical, Hawthorne, N. J., will present the Joseph J. Mattiello Memorial Lecture at the Annual Meeting of the Federation of Paint and Varnish Production Clubs, in Atlantic City, Oct. 22-24.

W. K. Menke, F.A.I.C., vice president, Chemical Divisions, announces that the Activated Carbon Division of Pittsburgh Coke & Chemical Company is greatly expanding its activated carbon plant capacity in Pittsburgh, Pa.

Nelson J. Gothard, F.A.I.C., was honored by Sinclair Research Laboratories, Inc., with a Retirement Party, May 21, in Midlothian, Ill. He retired as chief chemist, having joined Sinclair in 1919.

Ora Blanche Burright, F.A.I.C. is now on the editorial staff of Harlow Publishing Co., textbook publishers, Oklahoma City, Okla.

The new Research Center of Hooker Chemical Corporation, opened with ceremonies, June 2, at Grand Island, N. Y., was officially dedicated to **Robert Lindley Murray,** Hon. AIC, "board chairman and past president, in appreciation of his devoted service, inspired vision, and untiring efforts since 1916 for the enduring benefit of Hooker Chemical Corp." Governor Nelson A. Rockefeller spoke at the ceremonies. **Dr. Chris A. Stiegman,** F.A.I.C., is director of research of the new $3,600,000 Research Center. **Dr. Alvin F. Shepard,** F.A.I.C., heads the Plastics Research Group.

The Dewey & Almy Chemical Division, W. R. Grace & Co., Cambridge, Mass., announced the opening of its new plant at Owensboro, Kentucky, June 22, at a press reception on board the new Grace liner, *Santa Rosa*. **Richard L. Moore,** F.A.I.C., of the Grace Public Relations Department, introduced the speakers. The new $4-million facility will produce polyvinyl acetate polymers, butadiene styrene rubber latices, and battery separators.

Rosemary Klinkenberg, M.A.-I.C., became Mrs. John Breiland, May 2. She is supervisor of the Chemistry Department of Twin City Testing & Engineering Lab., Inc., St. Paul 14, Minn., and also edits *Fumes*, the newsletter of the Twin City AIC Chapter.

W. Ward Jackson, F.A.I.C., vice president, Commercial Solvents Corp., New York 16, N. Y. and past president of the New York Chapter, Armed Forces Chemical Association, was honored in June with a plaque and certificate of achievement, in ceremonies held at the Army Chemical Center, Edgewood, Md. The U.S. Army Chemical Corps paid special tribute to him "in recognition of outstanding contributions to the Corps . . . His fine example of loyal support, outstanding leadership, and devotion to Corps interests has been of immeasurable assistance in promoting a better understanding of the Chemical Corps in our total national defense." Maj. Gen. Marshall Stubbs, Chief Chemical Officer, made the presentation.

Dr. Egbert Mason Kipp, F.A.I.C., director, Research & Development, Foote Mineral Company, Berwyn, Pa., spoke before the May 14 meeting of the Pennsylvania AIC Chapter, at the Engineers' Club, Philadelphia, on "The Professional Chemist in Industry."

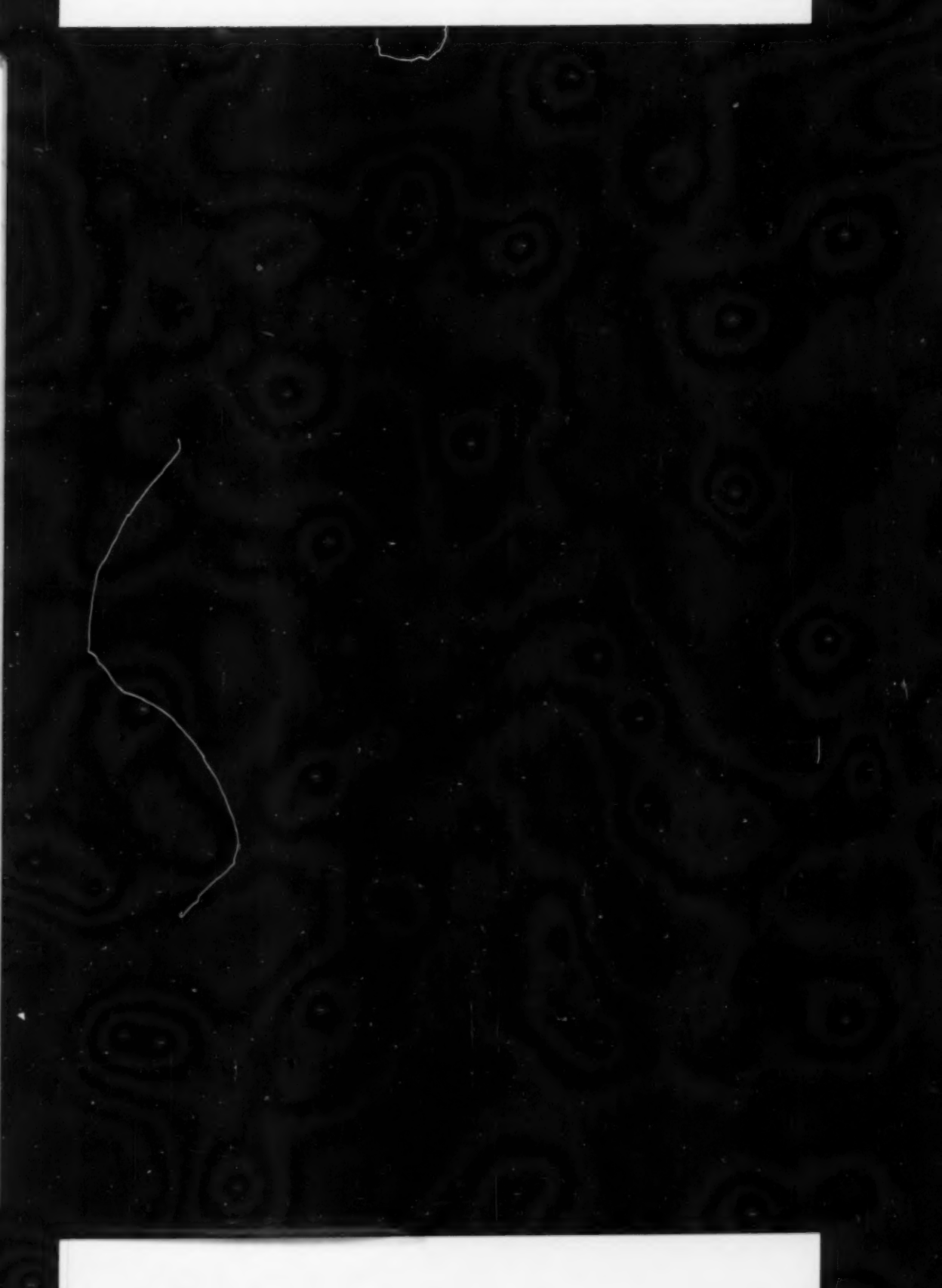
Dr. John E. McKeen, Hon. AIC, announces that Chas. Pfizer & Co., Inc., is erecting a new plant at Groton, Conn., for increased ascorbic acid production.

Dr. Frederick E. Breithut, F.A.I.C., former AIC president, retired, informs us that his address now is 525 Kalmia Street, San Diego 1, Calif.

Dr. Stewart J. Lloyd, AIC Charter Member, retired head of the Chemistry Department of the University of Alabama, was recently featured in an interview by *The Birmingham News*. His discovery of a salt dome near McIntosh brought five new chemical plants into the area along the Mobile River. Dr. Lloyd advised: "If we keep our eyes on the future rather than on the past, take care of our natural resources, educate our young people properly, and avoid fruitless political strife, we may confidently look forward to a steady and continued growth in our chemical industry."

Dr. Foster D. Snell, Hon. AIC, president, Foster D. Snell, Inc., New York, N. Y., spoke before the annual meeting of the Delaware AIC Chapter, May 27, in Kent Manor Inn, Wilmington, Del., on "Foster D. Snell Looks at the Chemical Profession."

Dr. Vanston H. Ryan, F.A.I.C., director, Division of Natural Science & Mathematics, Rockhurst College, Kansas City, Mo., addressed the May 5 meeting of the Midwest AIC Chapter, held at the College, on "Science and Education."

Dr. Lloyd A. Hall, Hon. AIC, technical director, The Griffith Labs., Inc., Chicago, Ill., received the Honorary D.Sc. degree from Howard University, Washington, D. C., in June.

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